	Work	Order II	D 108818
--	------	----------	----------

\*100010\*

Page 1

October-29-13 1	10:08:45 AM	R108818	1 ( 17								r age r	
Revision ID:	D2143 Hinge Bracket		Accept	*N900	040	100	)*	Setup	Start Stop	*N:	S1*	****
P.	10/29/13 Start Qt	y: 20.00 *20.* ty: 20.00 *20.*		Cust Item I	ID:					1 (1)		
Approvals:	Process Plan:M\	Date: 13-10-3			ate:		!	Run	Start Stop	171	R1* R2*	
Sequence ID/ Work Center ID	Operatio Descripti		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp	
Draw Nbr	Revision Nbr											
D2143	Rev.C1											-
*100 *100* Waterjet	FLOW WA	TER JET	0.00				20		<u>ں</u>		Ac	
FLOW CNC Waterje	et	1-Cut as per Dwg D2143 Dwg Rev: Prog Rev: 2-Deburr if necessary	•								13 (11)	1
110	QC2- Inspe	ect parts off machine FAI/FAIB	0.00									
*110* QC Quality Control		Memo	0.00				20		2		A. 13.11.	, դ {
120 *120*	QC8- Inspe	ect parts - second check	0.00 <b>DAS</b> 0.00 <b>27</b> 9.89				$\infty$					1
QC Quality Control		Memo	0.00 13/11	118			<u>~</u>	<del></del>				

DQA:		_ Date:											*	<sup>™</sup> ⊃∧DT
QA Closed:		Date:			WORK ORDER NON-	-C(	ONFO	RMANCE / UI		Wor	k Order up	ndate only	_	AEROSPACE
			_		DISPOSITION				AGAINST I				1_	
Work Orde	er:		•						AGAINS1 I	—	MINT IVILIA 17	PROCESS _		
					Rework		Ì	Skid-tube	Crosstube			Water Jet		Engineering
Part N	No				Scrap		1	Machining	Small Fab	_	Pro	d. Eng. Coor.		Quality
					Use-as-is		Thern	noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR f	No				Suspected Unapproved	ļ		Large Fab	Composite [			Supplier		
Root				Desci	ription of work order update		<u>l</u> Initial	Act	ion		Sign &		T	
Cause	Date	Step	Qty		or non-conformance	Ch	nief Eng	Descr	iption		Date	Verification	,	QC Inspector
Design													7	
Doc/Data		1												:
Equip/Tooling														
Handling/Pre													1	
Material										-				
Operator														
Offset/Setup														
Process														
Supplier										•				
Training														
Transport														
Unapproved													-	
						FA	ULT CAT	EGORY						
Landi	ng Gear				General	·								
	Bending				Bend		Folio/P	rogram			Outside Dim	ensions	$\Box$ F	Pressure/Forced
	Centre N	ot Concer	ntric		BOM/Route		Grain				over/Under	tolerance		Set-up
	Cracks				Broken/Damage/Defect		Hardwa	re		P	art Incorrec	rt [	7	Temperature/Cure
	Crimp/Kii	nk/Ripple	/Wave		Burrs		Inspecti	on Incomplete/Un	qualified	T p	art Lost/Mi	ssing	╗	Weld
	Cuffs				Contamination		Instruct	ions Incomplete/U	Jnclear	T P	art Moved	ļ	╗	Wrong Stock Pulled
	Crushing				Countersink		Misalig	ned/off center		P	ositioned W	/rong	_	-
	Heat Trea	ət			Cut Too Short		Mislabe			T P	ower Loss/S	Surge [	$\Box$	Other
	Inspectio	n Strip in	Tube		Drawing		Misread	1	L.	_				
	Marks/Ch	natter			Drill Holes		Off-set			_				
	Turning S	equence			Finish		Out of C	Calibration		_				
	Wave/Tw	vist in Tub	e		Fit/Function		Out of S	equence		_				

Work O	rder	ID	108818
--------	------	----	--------

## \*108818\*

Page 2

October-29-13 10:08:45 AM

Required Date: 10/29/13

Item	ID:	

D2143

10/29/13

Accept

\*N900040100\*

Setup Start

Stop

**Revision ID:** 

Item Name: **Start Date:** 

Hinge Bracket

Start Qty: 20.00 Req'd Qty: 20.00 \*20\* \*20\*

Cust Item ID:

**Customer:** 

Reference:

Approvals:

**Process Plan:** 

Date:

Tooling:

Date:

Run

Stop

QC:	Date:	SPC (Y/N):	D	ate:		Sit	*N	R2*
Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool # Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
*140 *140* Brake NC Brake NC	NC BRAKE  Memo  Bend as per Dwg D2143	0.00		DAS 30 98-89	20			13/11/ <sub>1</sub>
150 *150*	QC5- Inspect part completeness to step on W/O	0.00 DAS 27			20			
QC	Memo	0.00 13 9-19 -	1		20	<del></del>	100 - 100 -	

Chemical Conversion Coat per QSI005 4.1

0.00

\*160\*

Quality Control

HandFinish

Memo

0.00

26 13-11-20

Hand Finishing

DQA:		_ Date:						٠					W.	) A E	T
OA Charach		Data			WORK ORDER NON-	-C(	ONFO	RMANCE / UP					1	AEROSP	ACE
QA Closed:		Date:		<del></del>						Wor	k Order up	odate only			
Work Orde	er:				DISPOSITION				AGAINST I	DEP	ARTMENT	/PROCESS			
					Rework	]		Skid-tube	Crosstube	$\neg$		Water Jet	☐ Fr	ngineering	
Part N	No.				Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	┦ ¯	Quality	
					Use-as-is			noforming	Finishing			re/Packaging		Other	_
NCR N	No				Suspected Unapproved			Large Fab	Composite			Supplier	7		
			,			•									
Root				Desci	ription of work order update		Initial	Acti	on		Sign &	:			
Cause	Date	Step	Qty		or non-conformance	Ch	nief Eng	Descri	ption		Date	Verification		QC Inspect	tor
Design	$\square$														
Doc/Data															
Equip/Tooling															
Handling/Pre								·							
Material	$\vdash$												Ì		
Operator					* -										
Offset/Setup Process	-														
Supplier															
Training	$\dashv$	:													
Transport															
Unapproved															
	<u> </u>	<u> </u>	<u> </u>			FAI	ULT CAT	TEGORY					I		
Landii	ng Gear		-		General				·						
	Bending				Bend		Folio/P	rogram			utside Dim	ensions [	Pres	sure/Forced	. l
	Centre N	ot Conce	ntric		BOM/Route		Grain	· ·			ver/Under	tolerance	Set-		
	Cracks				Broken/Damage/Defect		Hardwa	re		P	art Incorrec	rt T	_	perature/Ci	ure
	Crimp/Ki	nk/Ripple	/Wave		Burrs		Inspecti	on Incomplete/Und	qualified	P	art Lost/Mi	ssing	Wel	d	
	Cuffs				Contamination		Instruct	ions Incomplete/Ui	nclear	P	art Moved		Wro	ng Stock Pu	illed
	Crushing				Countersink		Misalig	ned/off center		P	ositioned W	Vrong	_		
	Heat Trea				Cut Too Short		Mislabe	led		P	ower Loss/S	Surge	Oth	er	
:	Inspectio		Tube		Drawing		Misread	i		_					
	Marks/Cl				Drill Holes		Off-set			_					
	Turning S				Finish		4	Calibration		_	<u> </u>				
	Wave/Tw	vist in Tub	ne .	i	Fit/Function		Out of s	Secuence							

Work (	Order	ID	108818
--------	-------	----	--------

Page 3

October-29-13 10:08:45 AM Item ID: D2143 Accept \*N900040100\* Setup Start Revision ID: Item Name: Hinge Bracket Start Date: 10/29/13 **Start Qty: 20.00 Cust Item ID:** Required Date: 10/29/13 Req'd Qty: 20.00 **Customer:** Reference: Process Plan: \_\_\_\_\_ Date: \_\_\_\_ Tooling: Date: Approvals: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Tool # Plan Operation Set Up/ Tool ID Reject Accept Reject Insp. Work Center ID **Description Run Hours** Code Qty Qty Number Stamp White Gloss(Ref:4.3.5.1) per QS1005 4.3-Alum 170 0.00 20 \$ 13-11-Dl \*170\* Powdercoat 0.00 Memo START TIME: Powder Coating **OVEN TEMPERAT** FINISH TIME: QC3- Inspect Part Finish 0.00 CAG \*180\* QC 0.00 Memo Quality Control DAS

Identify as per dwg & Stock Location: 5705

\*190\*

Packaging Memo

Packaging

0.00

	- Date:						_					MAP	T
	Date:			WORK ORDER NON-	-C(	ONFO	RMANCE / U	JPDATE	Wo	ork Order up	odate only	AEROSPA	C E
ar:				DISPOSITION				AGAINST	-	·	· · · · · · · · · · · · · · · · · · ·	. I	
	. ,			Rework Scrap			Skid-tube			Pro	Water Jet	Engineering	$\exists \  $
No				Use-as-is Suspected Unapproved			moforming Finishir					Other	
			Desc	ription of work order update		Initial	Ac	ction		Sign &			
Date	Step	Qty		or non-conformance	1					_	Verification	QC Inspecto	r
											i		
							-						
							·						
													1
<u></u>	<u> </u>				FA	ULT CAT	FGORY						
ng Gear				<del></del>									
				1		]Folio/P	rogram		$\Box$	Outside Dim	ensions [	Dressure/Forced	
	ot Concer	ntric	-	ł	<u> </u>	1	108.4		$\vdash$		-		1
						1	re		$\vdash$		<u> </u>	<b>—</b>	ا ،
<del> </del>	nk/Ripple	/Wave	ļ	1 ' ' '	<u> </u>	ł		Inqualified	$\vdash$			· ·	-
	,	,		1	<del>                                     </del>	1	-		-		33118		
			<b>-</b>	4	<del> </del>	4	· ·		-		L Vrong		eu
					-	1			_			Other	
		Tube			_	4			Ш	i Owei Loss/.	Juige _	Jouren	$\dashv$
	-		<u> </u>	_	-	4	•		•	<del>-</del> ··			
					-	4	`alibration						
					_	4			•				-
	Date  Date	Date:  Da	Date:  Date:	Date:  Date:  Date:  Date Step Qty  Desc  Date Step Qty  Desc  Control Not Concentric  Cracks  Crimp/Kink/Ripple/Wave  Cuffs  Crushing  Heat Treat  Inspection Strip in Tube  Marks/Chatter  Turning Sequence	WORK ORDER NON  Date:  DISPOSITION  Rework Scrap Use-as-is Suspected Unapproved  Date Step Qty Description of work order update or non-conformance  Date Step Qty General Bending Bend Centre Not Concentric Gracks Broken/Damage/Defect Burrs Cuffs Contamination Crushing Countersink Heat Treat Cut Too Short Inspection Strip in Tube Marks/Chatter Turning Sequence Tirriish	WORK ORDER NON-CO	Date:    Disposition   Rework   Scrap   Use-as-is   Suspected Unapproved   Initial   Chief Eng	WORK ORDER NON-CONFORMANCE / L  Date:    DISPOSITION	Date:    Disposition   Skid-tube   Crosstube   Machining   Small Fab   Suspected Unapproved   Chief Eng   Description	Date   Disposition   Rework   Scrap   Use-as-is   Us	Date:    DISPOSITION   Rework   Skid-tube   Grosstube   Rec/Store   Suspected Unapproved   Composite   Composite	Date   Disposition   Rework   Skid-tube   Crosstube   Small Fab   Prod. Eng. Coor.   Rec/Store/Packaging   Large Fab   Composite   Sign & Over/Index tolerance   Part Loar/Kink/Ripple/Wave   Burrs   Curshing   Contamination   Curshing   Contamination   Curshing   Contamination   Curshing   Contamination   Curshing   Contamination   Curshing   Curshing   Curshing   Curshing   Contamination   Curshing   Cur	Date:    Disposition   Acquisity Department/PROCESS   Disposition   Disposition

Work Order	· ID	108818	3
------------	------	--------	---

Page 4

October-29-13 10:08:45 AM

Item ID:

D2143

10/29/13

Accept

\*N900040100\*

Setup Start

**Revision ID:** 

Start Date:

Item Name:

Required Date: 10/29/13

Hinge Bracket

**Start Oty: 20.00** Req'd Qty: 20.00 \*20\* \*20\*

**Cust Item ID:** 

**Customer:** 

Reference:

Approvals:

Process Plan:

QC:

Date:

Date:

**Tooling:** 

SPC (Y/N):

Date: Date: Run

Start

Stop

Sequence ID/

Work Center ID

Operation Description QC21- Final Inspection - Work Order Release Set Up/ **Run Hours**  Tool ID

Tool # Plan Code

Accept Qty

Reject Reject Qty

Insp. Number Stamp

200 \*200\*

Memo

0.00

0.00

Quality Control

N 13-11-22

DQA:		_ Date:			•								
QA Closed:		Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / U	PDATE	W	ork Order up	odate only	AEROSPACE
					DISPOSITION				AGAINST		PARTMENT		
Work Orde	er:				ļ	,		$\square$		_		_	-,
	•				Rework			Skid-tube	Crosstube	-		Water Jet	Engineering
Part N	NO				Scrap		i	Machining	Small Fab		4	d. Eng. Coor.	Quality
NICD N	u o				Use-as-is		Thern	noforming	Finishing	-	Rec/Stor	re/Packaging	Other
NCR N	NO				Suspected Unapproved	<b>j</b>		Large Fab	Composite	L	]	Supplier	
Root				Desc	ription of work order update	ı	Initial	Action			Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	QC Inspector
Design													
Doc/Data													
Equip/Tooling													
Handling/Pre													
Material													
Operator													
Offset/Setup													
Process													
Supplier													
Training													
Transport													1
Unapproved													
						FAI	ULT CAT	EGORY				-	
Landi	ng Gear				General		_	•					
	Bending				Bend		Folio/P	rogram			Outside Dim	ensions	Pressure/Forced
	Centre N	lot Conce	ntric		BOM/Route		Grain				Over/Under	tolerance	Set-up
	Cracks				Broken/Damage/Defect		Hardwa	re			Part Incorred	et 📙	Temperature/Cure
	Crimp/Ki	ink/Ripple	/Wave	L	Burrs		Inspecti	on Incomplete/U	nqualified		Part Lost/Mi	ssing	Weld
	Cuffs				Contamination		Instruct	ions Incomplete/I	Unclear		Part Moved		Wrong Stock Pulled
	Crushing				Countersink		Misalig	ned/off center			Positioned W	Vrong	<u> </u>
	Heat Tre	at			Cut Too Short		Mislabe	led			Power Loss/:	Surge	Other
	Inspection	on Strip in	Tube		Drawing		Misread	I			-		
	Marks/C	hatter			Drill Holes		Off-set						
	Turning :	Sequence			Finish		Out of (	Calibration					
	Wave/Tu	wist in Tub	ne		Fit/Function	П	Out of s	Seguence					

October-29-13 10:08:45 AM

Work Order ID:

108818

Parent Item:

D2143

Parent Item Name:

Hinge Bracket

**Start Date:** 10/29/13

Required Date: 10/29/13

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP C00.05.18Added inspection level 8 EC IPP Rev:D Now on WaterJet 06-10-15 JLM

IPP Rev:E 11.01.06 remove seq 130

	(tumbling) DD ve	erf:JLM											
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M5052H32S.040		Purchased	No			100	sf	195.2600	0.066	1.389474			()
5052-H32 .040 Sheet										·			<u> </u>
				<b>Location</b>		Loc Qty	<u>Lo</u>	c Code					
				MAT022		195.260045							
				122	406	12.160045							
				124	445	7							α
				124	<u>573</u>	39.1			124	1573 —	$\longrightarrow$	1,3	7
				125		15							
				m12	26593	122							

DQA:			_ Date: <sub>.</sub>			_									
						WORK ORDER NON-	-C(	ONFO	RMANCE / UP	PDATE					AEROSPACE
QA Closed:			Date:								Wo	rk Order up	date only		
Work Ord	er:					DISPOSITION				AGAINST	DEP	ARTMENT	/PROCESS		
					_	Rework			Skid-tube	Crosstube	П		Water Jet		Engineering
Part	No.					Scrap		Machining Small Fab		$\vdash$	<del></del>			Quality	
				_		Use-as-is			noforming	Finishing			e/Packaging		Other
NCR	No.			· · · · · · · · · · · · · · · · · · ·		Suspected Unapproved			Large Fab	Composite			Supplier	-	
Root	_				Dasc	ription of work order update		Initial	Acti	on	- 1	Cian 9			
Cause		Date	Step	Qty	Desc	or non-conformance	1	nief Eng	Descri			Sign & Date	Verificatio	<b>n</b>	QC Inspector
Design	П	Dute	эсер	αι,		or non comormance	Cit	ilei, Erig	Descri	рион	$\dashv$	Date	Vermeatio	11	QC IIISPECTOI
Doc/Data	Н												i		
Equip/Tooling					ļ		ŀ								
Handling/Pre	П											,			
Material	П										1				
Operator	П														
Offset/Setup											1				
Process											1				
Supplier											1				
Training															
Transport											Ī				
Unapproved															
							FA	ULT CAT	EGORY						
Landi	ng C	Gear				General		-							
	Щ	Bending				Bend		Folio/P	rogram			Outside Dim	ensions		Pressure/Forced
	Ш	,	ot Concer	ntric		BOM/Route		Grain				Over/Under	tolerance		Set-up
	Cracks Broken/Damage/Defect Crimp/Kink/Ripple/Wave Burrs			Broken/Damage/Defect		Hardwa	re		F	art Incorrec	:t		Temperature/Cure		
			Insp		nspection Incomplete/Unqualified		F	Part Lost/Missing		Weld					
,	-	Cuffs				Contamination		Instruct	ions Incomplete/Ui	nclear	F	art Moved			Wrong Stock Pulled
	-	Crushing			_	Countersink		Misalig	ned/off center		∐ F	ositioned <b>V</b>	√rong ·		
	$\vdash$	Heat Trea			<u> </u>	Cut Too Short		Mislabe	eled			ower Loss/	Surge		Other
	-	Inspectio	•	Tube		Drawing		Misread	1						
	$\vdash$	Marks/Ch				Drill Holes		Off-set			_				
	$\overline{}$	Turning S	•			Finish		Out of (	Calibration		_				
	1	Wave/Tw	ist in Tub	e	1	Fit/Function	1	Out of 9	Sequence						

DART AEROSPACE LTD	Work Order:	108818
Description: Hinge Bracket	Part Number:	D2143
Inspection Dwg: D2143 Rev: C1		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

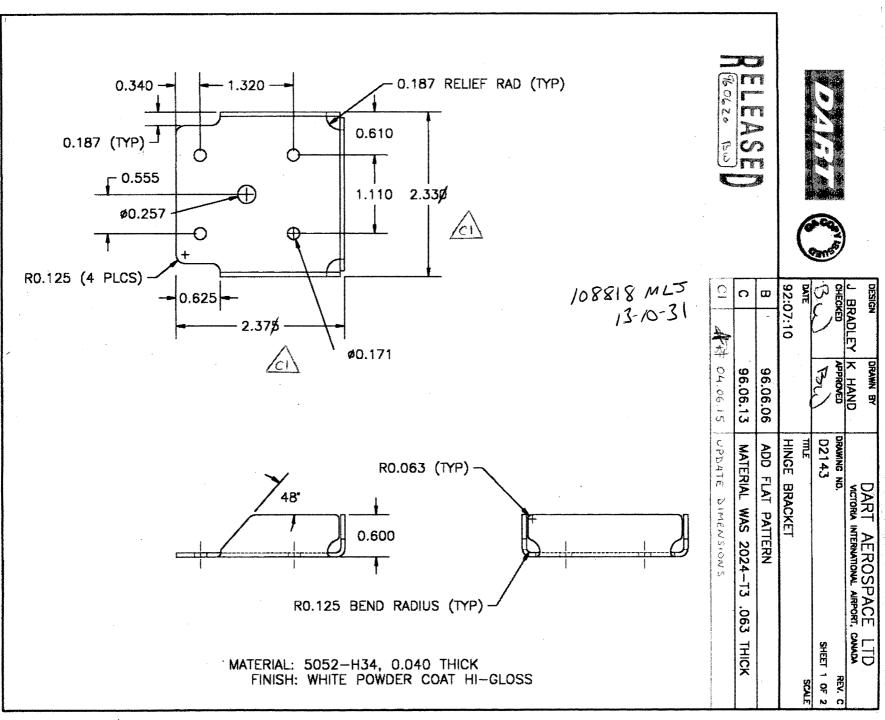
Prototype

X First Article

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.340	+/-0.010	,340	_		V	JKm-c1
0.625	+/-0.010	.625	_		V	
1.000	+/-0.010	1.000			V	
R0.063	+/-0.010	.063	_		V	
2.656	+/-0.010	2.656	-		V	
3.317	+/-0.010	3,317	_		V	
Ø0.257	+0.005/-0.000	.25%	-		V	
Ø0.171	+0.005/-0.000	.170	_		V	
1.660	+/-0.010	1.660			V	
2.844	+/-0.010	2.844	~		V	
1.659	+/-0.010	1.659	_		V	
R0.125	+/-0.010	125	_		RG	
2.312	+/-0.010	2312			V	

		DAS		
Measured by:	Audited by:	27 9-89	Prototype Approval:	N/A
Date: /3. // /8	Date:	13/11/8	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	04.11.11	New Issue	KJ/JLM OK	
			——	7-7



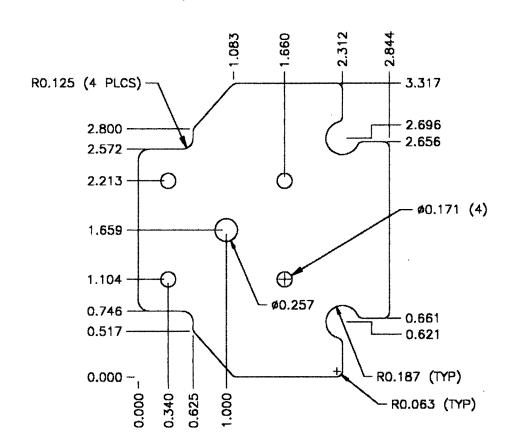






	DESIGN  J BRADLEY	DRAWN BY K HAND	DART AEROSPACE LTD victoria international airport, canada	
/	CHECKED	APPROVED	DRAWING NO.	REV. c
	Bul	Bow	D2143 SHEET	2 OF 2
1	DATE		TILE	SCALE
	95:10:18		HINGE BRACKET FLAT PATTERN	1:1





MATERIAL: 5052-H34, 0.040 THICK GRAIN ALONG 3.317